

## **REMARKS**

Claims 47-114 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

Applicants would like to thank the Examiner for the courtesy extended during the personal interview conducted on April 12, 2007. During the interview, Applicants' representative and the Examiner discussed proposed amendments to overcome the rejections under 35 U.S.C. §§ 112 and 102.

### **REJECTION UNDER 35 U.S.C. § 112**

Claims 50, 51, 59, 64, 96 and 104 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as the invention. This rejection is respectfully traversed.

With respect to the recitation of the control signal, Applicants amended the claims to recite a "controllable current signal." For example, inputs connected to controllable current source 45 (as shown in an exemplary embodiment in FIG. 2) receive a controllable current signal. In other words, respective terminals of transistors 35 and 37 are coupled to the controllable current signal received via the controllable current source 45.

With respect to the recitation "gates coupled in parallel," Applicants amended the claims to remove this limitation.

In view of the foregoing amendments, Applicants respectfully submit that claims 50, 51, 59, 64, 96, and 104 are now definite.

#### **REJECTION UNDER 35 U.S.C. § 102**

Claims 47-114 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hisatsu (U.S. Pat. No. 3,617,855). Claims 47-114 are rejected under 35 U.S.C. § 102(b) as being anticipated by Altman et al. (U.S. Pat. No. 5,708,391). Claims 47-114 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hotta (U.S. Pat. No. 5,291,452). Claims 47-114 are rejected under 35 U.S.C. § 102(b) as being anticipated by Andricos (U.S. Pat. No. 4,598,252). Claims 47-114 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kornfeld et al. (U.S. Pat. No. 5,974,041). These rejections are respectfully traversed.

With respect to claim 47, each of the cited prior art references fails to show, teach, or suggest that each of the plurality of amplifier cells is **selectively controllable in response to the controllable current signal** applied thereto to one of enable and disable each of the plurality of amplifier cells **for adjusting a combined transconductance** of the plurality of amplifier cells from the first inputs thereof to the outputs thereof **independent of other ones of the plurality of amplifier cells**.

For anticipation to be present under 35 U.S.C. §102(b), there must be no difference between the claimed invention and the reference disclosure as viewed by one skilled in the field of the invention. Scripps Clinic & Res. Found. V. Genentech, Inc., 18 USPQ.2d 1001 (Fed. Cir. 1991). All of the limitations of the claim must be inherent or expressly disclosed and must be arranged as in the claim. Constant v.

Advanced Micro-Devices, Inc., 7 USPQ.2d 1057 (Fed. Cir. 1988). Here, the cited art fails to disclose the limitation that each of the plurality of amplifier cells is selectively controllable to adjust their combined transconductance independent of other ones of the plurality of amplifier cells.

As shown in an exemplary embodiment shown in FIG. 4 of the present application, a plurality of amplifier cells 61, 63, and 65 are connected in parallel. As such, a transconductance of each of the plurality of amplifier cells 61, 63, and 65 contributes to a combined transconductance of the plurality of amplifier cells 61, 63, and 65 taken as a whole. Applicants respectfully notes that the transconductance of each of the plurality of amplifier cells is selectively and independently controllable. In other words, a transconductance of the amplifier cell 61 can be selectively controlled independently from transconductances of the amplifier cells 63 and 65 to adjust the combined transconductance. For example, please see Column 3, Lines 9-16, which state:

Each of the amplifiers may be selectively controlled, for example, via a controllable current source 45 that conducts the currents from the commonly connected sources in each amplifier. In this way, each of the amplifiers 61, 63, 65 may be selectively disabled or enabled to selectively expand the linear range 55, 55' of the combined transfer function.

As shown in an exemplary embodiment in FIG. 2 of the present application, each of the plurality of amplifier cells 61, 63, and 65 is selectively and independently controlled via a controllable current signal received from a controllable current source 45.

In view of the above, Applicants respectfully submit that each of the cited references fails to disclose the claimed limitations. For example, Applicants respectfully note that claim 47 recites that **the transconductance from a first input in**

**communication with a common control voltage to a second input in communication with a controllable current signal is selectively adjusted as described above.**

For example, referring to FIG. 5 of Hisatsu, the Examiner appears to rely on an input to a gate of transistor Q1 as the claimed input and the terminal of Q1 connected to resistor R1 as the claimed output. As best understood by Applicants, Hisatsu appears to be absent of any teaching or suggestion that a **transconductance** between the alleged input and output is selectively adjustable. Applicants respectfully note that each receives inputs 4 and 5 from the same source 1. Similarly, FIG. 5A of Altmann indicates that each of the alleged amplifier cells is connected to a common source  $V_{ss}$ . Hotta, Andricos, and Kornfeld fail to disclose selectively and independently adjustable amplifier cell transconductance **in response to a controllable current signal**.

Applicants respectfully submit that claim 1, as well as its dependent claims, should be allowable for at least the above reasons. The remaining independent claims, as well as their corresponding dependent claims, should be allowable for at least similar reasons.

#### **DOUBLE PATENTING**

Claims 47-114 are rejected on the ground of non-statutory double patenting over claims 7-27 of (U.S. Pat. No. RE 38,455) and also claims 15-46 of (U.S. Pat. RE 37,739). This rejection is respectfully traversed.


Applicants include herewith a timely filed terminal disclaimer to overcome the double patenting rejection.

#### CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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